

L. M. M. M. M. W.

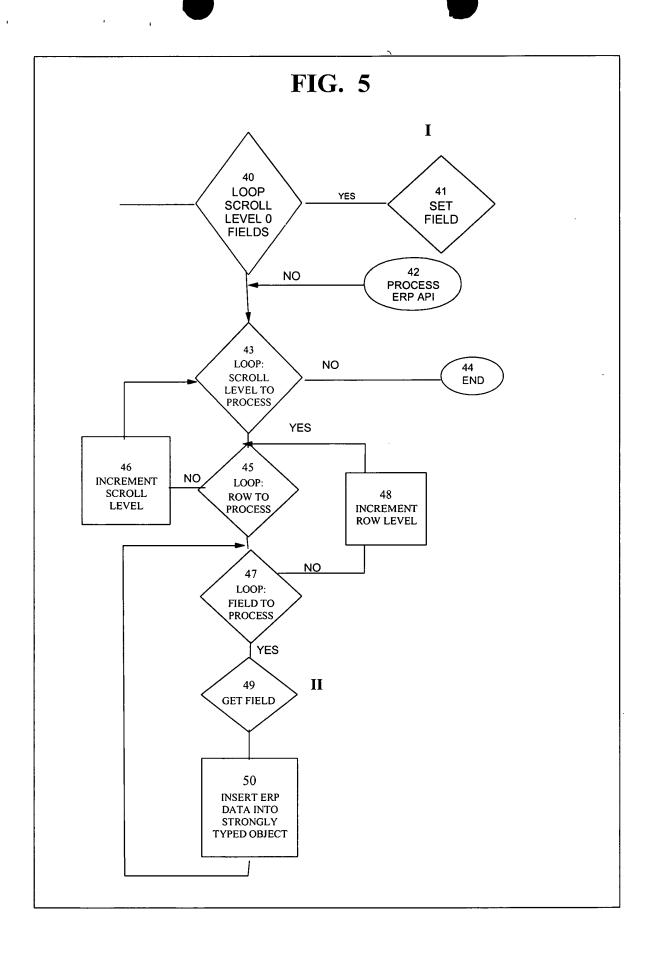


FIG. 6

STUDENT COURSE LIST

51 FIELD		JOHN SMITH	
52 SCROLL LEVE	EL 1		
	55 FIELD 1	56 FIELD 2	
53 ROW 1	57 MATH	100	
54 ROW 2	58 ENGLISH	101	

WEEKLY TYPED

FIG. 7

59 STUDENT NAME			JOHN SMITH		
60 COURSE LIST					
COURSE 1	61				
		NAME	62	MATH	
	•	NUMBER	63	100	
COURSE 2	64			·	
		NAME	65	ENGLISH	
		NUMBEI	R 66	101	

STRONGLY TYPED

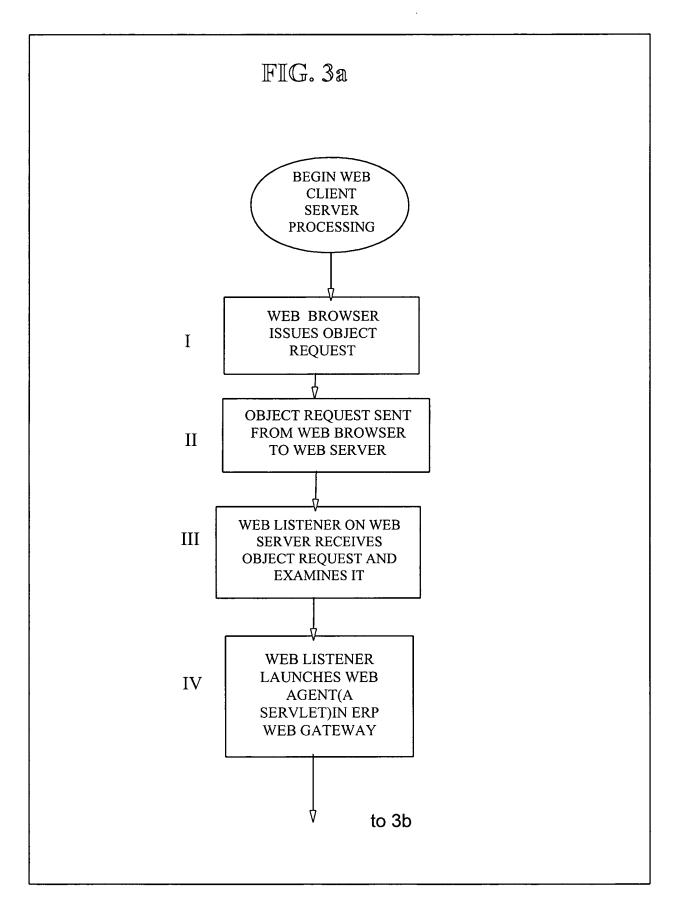
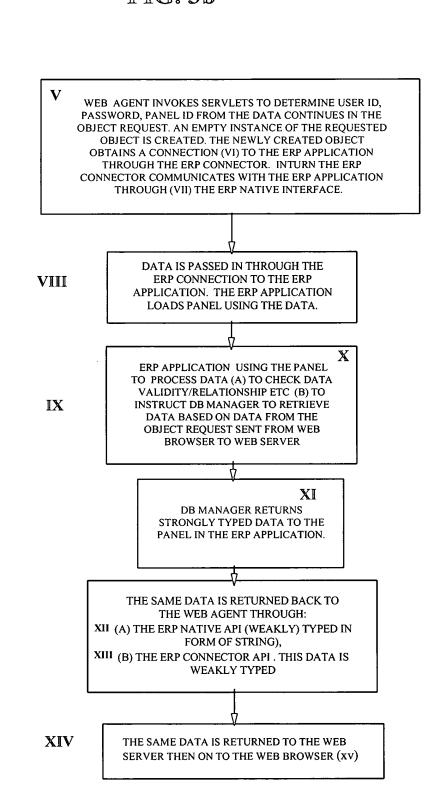


FIG. 3b



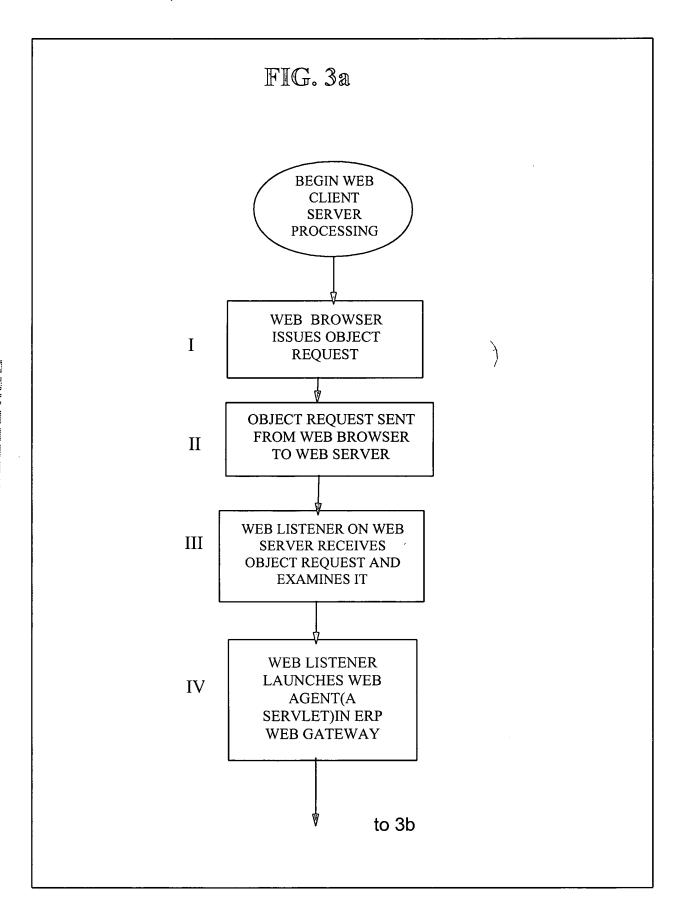
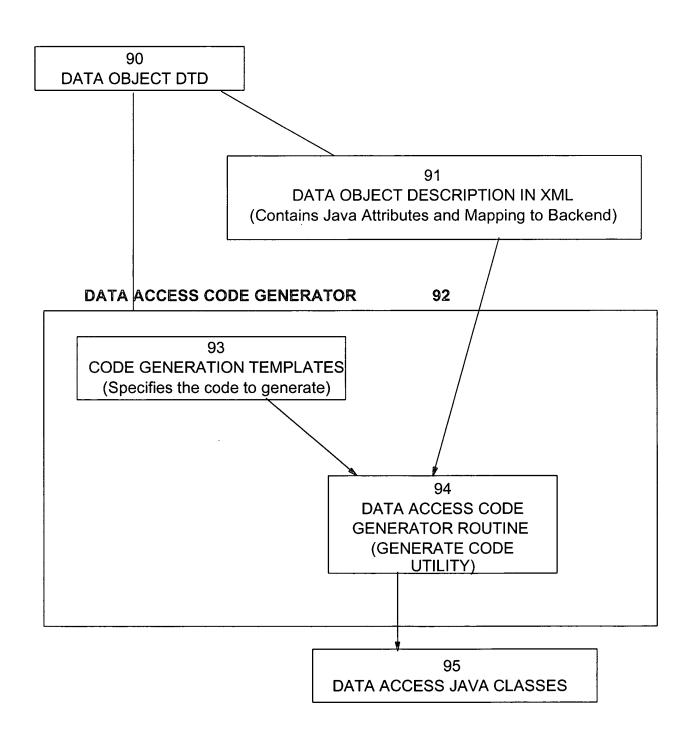


FIG. 3b WEB AGENT INVOKES SERVLETS TO DETERMINE USER ID, PASSWORD, PANEL ID FROM THE DATA CONTINUES IN THE OBJECT REQUEST. AN EMPTY INSTANCE OF THE REQUESTED OBJECT IS CREATED. THE NEWLY CREATED OBJECT OBTAINS A CONNECTION (VI) TO THE ERP APPLICATION THROUGH THE ERP CONNECTOR. INTURN THE ERP CONNECTOR COMMUNICATES WITH THE ERP APPLICATION THROUGH (VII) THE ERP NATIVE INTERFACE. DATA IS PASSED IN THROUGH THE ERP CONNECTION TO THE ERP VIII APPLICATION. THE ERP APPLICATION LOADS PANEL USING THE DATA. ERP APPLICATION USING THE PANEL TO PROCESS DATA (A) TO CHECK DATA VALIDITY/RELATIONSHIP ETC (B) TO IX INSTRUCT DB MANAGER TO RETRIEVE DATA BASED ON DATA FROM THE OBJECT REQUEST SENT FROM WEB BROWSER TO WEB SERVER XI DB MANAGER RETURNS STRONGLY TYPED DATA TO THE PANEL IN THE ERP APPLICATION. THE SAME DATA IS RETURNED BACK TO THE WEB AGENT THROUGH: XII (A) THE ERP NATIVE API (WEAKLY) TYPED IN FORM OF STRING), XIII (B) THE ERP CONNECTOR API . THIS DATA IS WEAKLY TYPED XIV THE SAME DATA IS RETURNED TO THE WEB SERVER THEN ON TO THE WEB BROWSER (xv)

FIG. 4



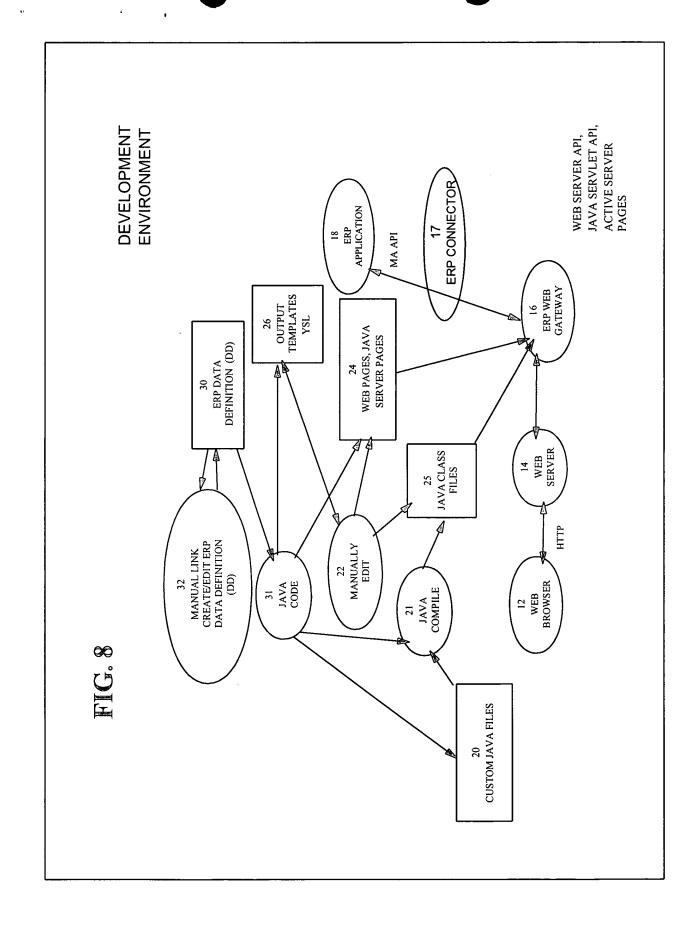


FIG. 9
DEFINING A SUB-GRAPH OF DATA OBJECTS

